

CLAIMS

✓ 1. A method for testing a plurality of semiconductor die, wherein the method
5 comprises:

- ① providing a plurality of semiconductor die;
- ② encapsulating the plurality of semiconductor die to form an array,
wherein the array has a perimeter;
placing the array on a temporary substrate;
10 placing the array with the temporary substrate on a testing platform;
testing at least one of the plurality of semiconductor die in the array
while the array is on the temporary substrate and the testing
platform; and
removing the temporary substrate.

✓ 2. The method of claim 1, wherein the temporary substrate is a temporary
15 adhesive substrate.

3. The method of claim 1, further comprising providing a support structure
20 outside the perimeter of the array.

4. The method of claim 1, wherein the temporary substrate comprises a support
structure.

25 ⑤ 5. The method of claim 1, further comprising sorting the array; and
wherein providing a plurality of semiconductor die further comprises:

providing a semiconductor wafer; and
singulating the semiconductor wafer to form a plurality of semiconductor die.

5 6. The method of claim 1, further comprising:

attaching the plurality of semiconductor die to a package substrate; and
electrically connecting at least one of the plurality of semiconductor die
to the package substrate.

10 7. The method of claim 6, further comprising electrically isolating the plurality
of semiconductor die in the array.

8. The method of claim 7, wherein electrically isolating is performed by using
one of a saw and a laser.

15 9. The method of claim 7, further comprising singulating the plurality of
semiconductor die in the array to physically separate at least two semiconductor
die of the plurality of semiconductor die from each other.

20 10. The method of claim 9, wherein singulating is performed by sawing.

11. The method of claim 1, wherein encapsulating the plurality of
semiconductor die further comprises molding the plurality of semiconductor
die.

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12. The method of claim 1, wherein testing at least one of the plurality of semiconductor die in the array further comprises testing in parallel at least two of the plurality of the semiconductor die.

5 13. A method for testing a plurality of semiconductor die, wherein the method comprises:

providing a semiconductor wafer;

singulating the semiconductor wafer to form a plurality of semiconductor die;

10 placing the plurality of semiconductor die on a temporary adhesive substrate;

placing the plurality of semiconductor die with the temporary adhesive substrate on a testing platform;

testing at least one of the plurality of semiconductor die; and

15 removing the temporary adhesive substrate after testing.

14. The method of claim 13, further comprising:

attaching the plurality of semiconductor die to a package substrate; and

electrically connecting at least one of the plurality of semiconductor die

20 to the package substrate.

15. The method of claim 14, further comprising electrically isolating the plurality of semiconductor die.

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16. The method of claim 15, further comprising singulating the plurality of semiconductor die to physically separate at least two semiconductor die of the plurality of semiconductor die from each other.

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17. The method of claim 13, further comprising encapsulating the plurality of semiconductor die to form an array, wherein the array has a perimeter.

18. The method of claim 13, further comprising providing a support structure in contact with the temporary adhesive substrate.

19. The method of claim 13, further comprising sorting the plurality of semiconductor die, wherein removing the temporary adhesive substrate is performed while sorting the plurality of semiconductor die.

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20. The method of claim 13, further comprising forming an array using the plurality of semiconductor die prior to placing the plurality of semiconductor die on the temporary adhesive substrate.

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21. The method of claim 13, wherein placing the plurality of semiconductor die on the temporary adhesive substrate forms an array.

22. A packaged array comprising:

a package substrate;

an array of a plurality of semiconductor die, wherein the array has a first

25 side and a second side, wherein the first side of the array is

adjacent to a first side of the package substrate and the plurality of semiconductor die are electrically isolated from each other; and a temporary adhesive substrate adjacent to the second side of the array.

5 23. The packaged array of claim 22, wherein the plurality of semiconductor die in the array are physically isolated from each other.

24. The packaged array of claim 22, wherein the plurality of semiconductor die in the array are connected by an encapsulant.

10 25. The packaged array of claim 22, further comprising a support structure.

26. The packaged array of claim 25, wherein the support structure is in contact with the temporary adhesive substrate.

15 27. The packaged array of claim 25, wherein the temporary adhesive substrate comprises the support structure.

20 28. The packaged array of claim 25, wherein the support structure comprises an identification marking.

25 29. The packaged array of claim 26, wherein the identification marking is selected from the group consisting of a bar code, a two dimension matrix, and radio frequency circuitry.

30. The packaged array of claim 22, wherein the temporary adhesive substrate is a tape.

31. The packaged array of claim 22, wherein the package substrate is a material
5 selected from the group consisting of a metal and an organic material.

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